

PERSONNEL QUALIFICATIONS
FOR
NAVAL RESEARCH LABORATORY
RESEARCH, DEVELOPMENT AND ENGINEERING SUPPORT
FOR SPECIALIZED AEROSPACE SYSTEMS

PERSONNEL QUALIFICATIONS

The Naval Research Laboratory (NRL) established a representative matrix of the labor categories and skills to which the contractor shall propose. Resumes should use the same labor category headings to relate the experience of the candidates to the minimum standards set forth below. If the contractor uses a labor category terminology other than that used in this provision, the contractor must provide a matrix clearly relating their proposed labor categories to those in the provision. Only one resume per key category is required. The proposed personnel shall be available for work efforts on the first day after contract award. Personnel designated as key personnel must possess or be capable of obtaining, as a minimum, a SECRET clearance. The following are the desired qualifications.

Senior Program Manager (Key Position) – B.Sc., Engineering, Finance, Business, or Operations Research. It is desired that this individual have at least twelve years of directly related experience managing complex technical efforts in space systems. Experience shall include liaison with executive and technical personnel within the research and development community, as well as project and contract management and demonstrated experience with the DOD acquisition process. Individual shall have direct experience in the planning, direction, and control of scientific and advanced technology development programs involving NRL's spaceflight vehicles, transfer stages, satellites, instruments, experimental payloads or similar DoD satellite systems. Individual shall have experience with the programmatic and technical program planning required to support the developmental process including: budgets and schedules, risk analysis, engineering specialty integration, program reviews, technical performance measurement, interface control, and program planning. Individual shall have good written and oral communications skills as evidenced by publications and presentations at conferences.

Project Manager (Key Position) – B.Sc., Engineering, Finance, Business, or Operations Research. It is desired that this individual have at least six years of directly related experience managing complex technical efforts in space systems. Individual's experience shall include liaison with project and contract management personnel. Individual shall have specific experience with the technical coordination process among Government, co-contractor, Academic, and Industry personnel with relevant experience with the DOD acquisition process. Individual shall have direct experience in the planning, direction, and control of scientific and advanced technology development programs involving NRL spaceflight vehicles, transfer stages, satellites, instruments, experimental payloads, or similar DOD satellite systems. Individual shall have specific experience with the technical program planning to support the developmental process including risk analysis, engineering specialty integration, program reviews, technical performance measurement, interface control, and program planning. Individual shall have experience supporting the space vehicle integration process.

Senior Engineer, Aerospace (Key Position) – M.Sc., Aerospace Engineering, Physics, Mechanical or Electrical Engineering. It is desired that this individual have at least eight years of directly related experience providing solutions to a wide range of technical and engineering problems for spaceflight systems. The individual shall have; experience with spacecraft and payload integration and testing, spacecraft operations, and project engineering, demonstrated experience with the design, analysis, fabrication, testing, and integration of aerospace hardware, be capable of resolving technical problems as they arise using engineering solutions based on analysis test, and engineering precedent, experience supporting the spaceflight vehicle and payload integration process in terms of thermal, electrical, and structural considerations, demonstrated capability and experience to design, develop, and test prototype hardware using Government-furnished facilities, be capable of planning and conducting systems tests using advanced metrology and data analysis equipment, relevant experience interfacing with space vehicle and launch integration personnel, safety managers, and technical lead engineers to develop launch range documentation and have good written and oral communications skills as evidenced by publications and presentations at conferences.

Engineer, Aerospace – B.Sc., Aerospace Engineering, Physics, Mechanical or Electrical. It is desired that this individual have at least six years of directly related experience providing solutions to a wide range of technical and engineering problems for spaceflight systems. The individual shall have; experienced with spacecraft and payload integration and testing, spacecraft operations, and project engineering, demonstrated experience with the design, analysis, fabrication, testing, and integration of aerospace hardware, be capable of resolving technical problems as they arise using engineering solutions based on analysis and test, relevant experience supporting the spaceflight vehicle and payload integration process in terms of thermal, electrical, and structural considerations, demonstrated capability and experience to design, develop, and test prototype hardware using Government-furnished facilities, be capable of planning and conducting systems tests using advanced metrology and data analysis equipment, relevant experience interfacing with space vehicle and launch integration personnel, safety managers, and technical lead engineers to develop launch range documentation.

Master Scheduler (Key Position) – B.Sc., Engineering, Physical Sciences, or Mathematics. It is desired that this individual have at least three years of directly applicable experience in the planning, scheduling, and control of spaceflight systems, instruments, and experimental payloads. The Individual shall have; specific experience developing systems and subsystem schedules, task plans, planning payload and launch activities, and developing related program controls and procedures, experience planning the development of structures and electro-mechanical devices for spaceflight use, experience demonstrating responsibly for outlining and scheduling of task assignments, monitoring of day-to-day developmental activities, prioritization of work and effective performance of project tasks, experience demonstrating a working knowledge of payload and launch site processing requirements with relevant experience in spacecraft systems test and integration and have good written and oral

communications skills, coupled with an in-depth knowledge of high-end scheduling programs like Primavera and general purpose scheduling programs like Microsoft Project.

Sr. Systems Engineer, Guidance, Navigation, and Control (Key Position) – M.Sc., Aerospace Engineering, Physics, or Mathematics. It is desired that this individual have at least six years of directly related experience developing mathematical and computer models and performance assessments of attitude determination and control systems for spaceflight and launch vehicles. The Individual shall have; demonstrated capability to analyze control systems and develop mathematical models, computer simulations, and spacecraft simulator software supporting stability analysis, parametric sensitivity, control loops, and systems responses, demonstrated capability and experience developing custom software for control systems modeling and predication of system responses, specific experience in real-time software systems including requirements analysis, development, and testing, demonstrated capability to interface and support the flight operations staff in attitude determination and control, control system configuration, and anomaly resolution and good written and oral communications skills as evidenced by publications and presentations at conferences.

Engineer, Information Technologies (Key Position) – B.Sc., Computer Science, Computer Engineering, Physical Sciences, or Mathematics. It is desired that this individual have at least six years of directly related experience developing software algorithms, real-time software, and application software supporting spaceflight development programs. The individual shall have; demonstrated knowledge of Asynchronous Transfer Technology and SONET protocols, demonstrated software development capabilities using Java, C, C++, LINUX and UNIX environments coupled with the expertise and capability to specify and develop protocols for use in information age technology networks, demonstrated capability to design, implement, and maintain large relational databases, with strong proficiency in the use of Oracle DBMS, demonstrated experience, knowledge, and familiarity with software test beds and space vehicle simulators that have the capability to evaluate problems occurring during the developmental process, relevant experience with ground support equipment for testing and commanding spaceflight hardware and software in an operational satellite environment, including ground support software, browser-based control systems, and specialized telemetry formatting and de-commutation equipment, be thoroughly familiar with operations on LAN/WAN using PC, Macintosh, Sun, and/or Silicon Graphics Workstation hardware and software. Computer graphics language developmental experience is highly desirable.

Engineer, Reaction Control Systems – B.Sc. Aerospace Engineering, Physics, or Mathematics. It is desired that this individual have at least six years of directly related experience involving the planning and execution of aerospace propulsion system development in the areas of fluid flow, design, component selection and arrangement, fluid lines and tank mountings, fabrication and assembly, testing, qualification, thermal design, mechanisms, and related mechanical devices. The individual shall have; relevant knowledge of the mechanics of materials, metal fatigue and corrosion, thermal control, liquid and solid propulsive systems, monopropellant and bipropellant propulsion systems, and the structural design of aerospace and spaceflight propellant systems, demonstrated knowledge in the design and analysis of aerospace propulsion systems with relevant experience in the resolution of complex engineering and assembly problems, demonstrated familiarity with launch site facilities and range safety requirements of various launch sites (Cape Canaveral, Vandenberg, and Wallops Island) is mandatory, experienced with the conceptualization, design, analysis, and fabrication of complex propulsion Ground Support Equipment (GSE) and familiarity with planning aerospace system development. Work in the field must be of such significance and competence as to have established the Candidate as an authority in the design, assembly, test, and fueling of reaction control systems.

Senior Engineer, Mechanical or Electrical (Key Position) – B.Sc., Mechanical or Electrical Engineering, Physics, or Mathematics. It is desired that this individual have at least six years of directly related experience in the planning and execution of aerospace hardware development in the areas of fluid flow, structures, avionics, thermal control, aerodynamics, mechanisms, and mechanical devices. The individual shall have; demonstrated knowledge in the design and analysis of aerospace hardware with relevant experience in the resolution of complex engineering problems, including thermal, mechanical, and electrical tasks, experience in detailed engineering, analysis, and development of mechanisms and electro-mechanical components and subassemblies that are deployed on space vehicles and flight instruments, experienced with the conceptualization, design, analysis, and fabrication of complex GSE, familiarity with planning and scheduling activities for aerospace system development and demonstrated capability to use automated design tools.

Technician, General Design and Support – Associates Degree in Engineering Technology. It is desired that this individual have at least three years of directly related experience supporting electro-mechanical design and assembly. The individual shall have; specific knowledge in the troubleshooting and repair of analog and digital components and microprocessor-based flight systems, integration, test, and processing of spaceflight electro-mechanical components, harnesses, structures and related subassemblies or GSE, experience with cable harnessing for spaceflight applications, experience with maintenance, operations, and modification of electronic and mechanical systems, demonstrated experience operating and maintaining electrical GSE and environmental facilities used during test activities, demonstrated experience performing fabrication, test, and integration tasks in the areas of electro-mechanical assembly, fabrication, propulsion, GSE, and development testing, knowledge and experience in interrogating and measuring data from sensors and related data acquisition equipment.

The individual shall possess or be able to possess the required DOD and Navy certifications for forklift and crane operations.

Project Analyst – B.A. or B.Sc., Engineering, Finance, or Business Marketing. It is desired that this individual have at least four years of directly related experience with the tracking, analysis, and reporting of program plans and schedules. The individual shall have specific experience developing budgetary estimates of program costs, risk analysis, and earned value applications, relevant experience in tracking program costs to include actual versus budgeted, cost variances, and cost to completion, be capable of developing spreadsheets using mathematical formulas, macros, and the ability to link sheets within a workbook and link independent files, be capable of using in-house budgetary databases and spreadsheets for analytical purposes, experience demonstrating proficiency with PC and Macintosh cross-platform computers, MS Excel, and other spreadsheet, and database programs.

Project Coordinator – Associates Degree. It is desired that this individual have at least four years of directly related experience with the coordination and execution of space systems projects, programs, and studies. The individual shall have; specific experience developing systems and subsystem level schedules, project budgets, planning payload and launch activities, and developing program controls and procedures, relevant experience planning, coordinating, and tracking technical reviews and interface working groups, be capable of developing databases using Microsoft Excel and FileMaker Pro to support ad hoc action items and materials tracking activities, experience demonstrating proficiency with PC and Macintosh cross-platform word processing, spreadsheet, and database programs.

Senior Technical Writer/Editor – B.A. or B.Sc., Engineering, Software Engineering, Economics, or English. It is desired that this individual have at least six years of directly related experience with the coordination and execution of coordinating and interfacing with engineering and technical personnel to prepare, edit, and proof technical specifications, plans, procedures, proposals, and documents related to space and launch systems, related instrumentation and other experimental payloads. The individual shall have; working knowledge of the requirements for hardware and software documentation using the appropriate military and commercial standards to meet a diverse set of program needs, demonstrated capability to collect, compile, and track technical data and comments thereto, to include the documentation and tracking of CDRLs using automated tools, experience demonstrating proficiency with PC and Macintosh cross-platform word processing, spreadsheet, and database programs.

Technical Writer/Editor – B.A. or B.Sc., Engineering, Software Engineering, Economics, or English. It is desired that this individual have at least three years of directly related experience with the coordination and execution of coordinating and interfacing with engineering and technical personnel to prepare, edit, and proof technical specifications, plans, procedures, proposals, and documents related to space and launch systems, related instrumentation and other experimental payloads. The individual shall have; working knowledge of the requirements for hardware and software documentation using the appropriate military and commercial standards to meet a diverse set of program needs, demonstrated capability to collect, compile, and track technical data and comments thereto, to include the documentation and tracking of CDRLs using automated tools, experience demonstrating proficiency with PC and Macintosh cross-platform word processing, spreadsheet, and database programs.

Senior Designer, Graphics and Multimedia – B.Sc. or B.A., Graphics Arts. It is desired that this individual have at least six years of directly related experience with the following: The individual shall have; demonstrated capability to apply graphics concepts for presentation, multimedia layouts, paste-ups, panels, color selection, and pay layout principles, theories and concepts, demonstrated capability to coordinate and interface with engineering and scientific personnel to develop, prepare, edit, and to collect, compile, and track graphically related files, clip art, and support files using automated tools, experience demonstrating proficiency with PC and Macintosh cross-platform graphics, word processing, spreadsheet, and database programs, and demonstrated capability with graphics programs (Adobe Illustrator and Photoshop), non-linear editing programs, and 3-D presentation programs.

Designer, Graphics and Multimedia – B.Sc. or B.A., Graphics Arts. It is desired that this individual have at least three years of directly related experience with the following: The individual shall have; demonstrated capability to apply graphics concepts for presentation, multimedia layouts, paste-ups, panels, color selection, and pay layout principles, theories and concepts, demonstrated capability to coordinate and interface with engineering and scientific personnel to develop, prepare, edit, and to collect, compile, and track graphically related files, clip art, and support files using automated tools, experience demonstrating proficiency with PC and Macintosh cross-platform graphics, word processing, spreadsheet, and database programs and demonstrated capability with graphics programs (Adobe Illustrator and Photoshop), non-linear editing programs, and 3-D presentation programs.

Administrative and Clerical Specialist – Two years of experience with non-technical writing, word processing, spreadsheets, proofreading, general computer art, and database maintenance. Individual shall have specific experience with standard PC and Macintosh cross-platform applications software like Microsoft Word, Excel, PowerPoint, FileMaker Pro, and graphics software.

Component Engineer / Parts Procurement Specialist – B.Sc., Electrical Engineering.

It is desired that this individual have at least six years of directly related experience performing parts engineering, including parts list and component reviews, parts selection, developing screening and qualification procedures, and reviewing test data to determine component acceptability. The individual shall have; demonstrated capability to initiate and track material and component procurements including interfacing with vendor identification, and parts procurement of electrical, electronic, and electro-mechanical items, as well as mechanical assemblies and components and demonstrated capability to coordinate, prepare, edit, and proof technical specifications, drawings, plans, procedures, and documents related to the specification and procurement of spaceflight materials, including a working knowledge of the requirements for component specification.

Senior Intranet and Networking Specialist (Key Position) – B.A. or B.Sc., Engineering, Computer Science, or Graphic Design. It is desired that this individual have at least six years of directly related experience in the specification and setup of domains, servers, telecommunications networks, remote access systems, and mail servers. The individual shall have; working knowledge of Java, JavaScript, PHP, and PERL to support networking solutions, working knowledge of web page authoring tools, coupled with a demonstrated capability to develop graphically oriented solutions to internal Intranet needs, and demonstrated capability to design, develop, program, and maintain custom home pages supporting a variety of links and types of content, including audio, animation, and text.

Intranet and Networking Specialist - B.A. or B.Sc., Engineering, Computer Science, or Graphic Design. It is desired that this individual have at least two years of directly related experience in the specification and setup of domains, servers, telecommunications networks, remote access systems, and mail servers. The individual shall have; demonstrated ability to support both PC and Macintosh users for the installation and testing of operating systems and software applications, working knowledge of Java, JavaScript, PHP, and PERL to support networking solutions, working knowledge of web page authoring tools, coupled with a demonstrated capability to develop graphically oriented solutions to internal Intranet needs and demonstrated capability to design, develop, program, and maintain custom home pages supporting a variety of links and types of content, including audio, animation, and text.